SEP 27 1990

FEMA 209: 390272

FLOOD INSURANCE STUDY

HOCKING COUNTY, OHIO

UNINCORPORATED AREAS

NOVEMBER 16, 1990

Federal Emergency Management Agency

COMMUNITY NUMBER - 390272

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

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FLOOD INSURANCE STUDY

HOCKING COUNTY,
UNINCORPORATED AREAS,
OHIO

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the Unincorporated Areas of Hocking County, Ohio, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates and assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were performed by Dodson-Lindblom Associates, Inc. (the Study Contractor) for the Federal Emergency Management Agency (FEMA), under Contract No. EMW-87-C-2460. This study was completed in August 1988.

The hydrologic and hydraulic analyses for Rush Creek and Bear Run included in this study were provided by the Soil Conservation Service (SCS) (Reference 1).

1.3 Coordination

On October 23, 1986, an initial meeting was held with representatives of FEMA, the Ohio Department of Natural Resources, Hocking County, and the Study Contractor to determine the scope of study. Various agencies and individuals were contacted for information on flood history and other hydrologic data.

Information needed to tie this study into previously completed studies was coordinated with FEMA and the Study Contractor. Local libraries and newspapers were researched for information on past flooding in the area.

On December 4, 1989, the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the Study Contractor, FEMA, and the community.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the unincorporated areas of Hocking County, Ohio. The area of study is shown on the Vicinity Map (Figure 1). The incorporated areas within the county were excluded from this study.

Flooding caused by overflow of the Hocking River, Oldtown Creek, Snow Fork, Snow Fork Tributary, Monday Creek, Salt Creek, Laurel Run, Rush Creek and Bear Run was studied in detail.

Areas having low development potential or minimal flood hazards were previously studied using approximate analyses. The results were shown on the Flood Hazard Boundary Map for Hocking County, Ohio (Reference 2) and are incorporated into this Flood Insurance Study.

The areas studied were selected with priority given to all known flood hazard areas and areas of projected development or proposed construction through August 1993. The scope and methods of study were proposed to and agreed upon by FEMA and Hocking County.

2.2 Community Description

Hocking County is in southeastern Ohio and is bordered by Fairfield and Perry Counties on the north; Pickaway and Ross Counties on the west; Vinton County on the south; and the City of Nelsonville and Athens County on the east. The county is served by U.S. Route 33; State Routes 56, 78, 93, 180, 328, 374, 595 and 664; and CSX railroad. The 1980 census population of Hocking County was reported to be 24,304 (Reference 3).

Hocking County has a total land area of 269,040 acres. Of this area, approximately 16-percent is for cropland, 6-percent is pasture land, 47-percent is woodland, 7-percent is other farmland and farm facilities, and 24-percent is urban and other non-farm areas (Reference 4).

The climate of Hocking County is essentially continental in nature. Average temperatures range from 27.7 degrees Fahrenheit (^{o}F) in January to 72.4^{o}F in July. Average precipitation at Enterprise is 39.47 inches (Reference 5). The growing season is approximately 165 days and extends from late April to the middle of October (Reference 6).

2.3 Principal Flood Problems

Flooding in Hocking County can occur at any time of the year; however, major floods of the past, such as March 1907, March 1964 and May 1968 floods, have occurred during winter and spring months. In March 1907, spring rains combined with melting snow and caused the worst flood on the

FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

APPROXIMATE SCALE

16 0 16 32 48 MILES

3

VICINITY MAP

Hocking River in Hocking County. This flood was estimated as having a recurrence interval greater than 100 years.

2.4 Flood Protection Measures

The Rush Creek Conservancy District and SCS have constructed 19 flood control dams, about 1.9 miles of levee, and have made about 23 miles of channel improvements within the Rush Creek Watershed.

In the Village of Laurelville, an existing levee extends approximately 5,600 feet downstream of the State Route 180 bridge over Laurel Run along the left bank of Laurel Run and Salt Creek. The levee was constructed by local interests in the 1920s and consists primarily of sand and gravel materials with no impervious core. This levee is not considered to provide protection from the 100-year flood event.

Nonstructural measures in the form of land use regulations are also being used to aid in the prevention of future flood damage (Reference 7).

Levees exist in the study area that provide the community with some degree of protection against flooding. However, it has been ascertained that some of these levees may not protect the community from rare events such as the 100-year flood. The criteria used to evaluate protection against the 100-year flood are 1) adequate design, including freeboard, 2) structural stability, and 3) proper operation and maintenance. Levees that do not protect against the 100-year flood are not considered in the hydraulic analysis of the 100-year floodplain.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that is expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedence) in any 50-year period is approximately 40-percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60-percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each riverine flooding source studied in detail affecting the community.

The 100-year flood discharges for the Hocking River were derived from flood frequency data obtained from the Enterprise and Athens gaging stations which were presented in Bulletin No. 45 (Reference 8). The Flood Insurance Study for the City of Athens (Reference 9) also presented flow frequency data for the Athens gaging station. The difference between the 100-year flood flow from Bulletin No. 45 and the flood flow from the Athens study was less than 5-percent. In order to maintain continuity of flood discharges along the Hocking River, the 100-year flow from the City of Athens study was averaged with the 100-year flow from Bulletin No. 45 for the Athens gage. Flood flows were then obtained from a log-log plot of discharge versus drainage area, based on the data from the Enterprise gage and the data averaged for the Athens gage.

The 100-year flood discharges for Oldtown Creek, Snow Fork, Snow Fork Tributary, Monday Creek, Salt Creek, and Laurel Run were estimated using the regression equations presented in Bulletin No. 45 (Reference 8).

The 100-year flood discharges for Rush Creek and Bear Run were established through use of the TR-20 computer program (Reference 10).

Peak discharge-drainage area relationships for the 100-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 100-YEAR
HOCKING RIVER		
just upstream of the confluence of Scott Creek	469	31,300
at Home Road	459	30,900
at Rockbridge B Road	437	30,000
OLDTOWN CREEK		
about 3,800 feet downstream of Sulton Road	12.1	3,430
MONDAY CREEK		
about 7.4 miles above mouth	81.3	6,550

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 100-YEAR
SNOW FORK		
just upstream of Brush Fork	13.7	4,800
just downstream of Snow Fork Tributary	12.0	3,920
just upstream of Snow Fork Tributary	10.3	3,460
SNOW FORK TRIBUTARY		
at mouth	1.6	1,110
SALT CREEK		
just downstream of confluence of Brimstone Creek	110.50	20,430
LAUREL RUN		
at confluence of Salt Creek Fork	54.60	7,030
RUSH CREEK		
at Klump Road	N/A	9,730
at Old Bremen Road	N/A	9,570
BEAR RUN		
at mouth	N/A	2,760

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals.

Cross-section data were obtained from field surveys. All bridges and culverts were surveyed to obtain elevation and structural geometry data.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles and on the Flood Insurance Rate Map.

Roughness coefficients (Manning's "n") were estimated from field reconnaissance of the study area.

Manning's "n" Values

Stream	Channel	Overbank
Hocking River	0.035-0.042	0.05-0.07
Oldtown Creek	0.042	0.05
Monday Creek	0.040	0.10
Snow Fork	0.040-0.048	0.05-0.4
Snow Fork Tributary	0.04	0.05-0.15
Salt Creek	0.04	0.04-0.05
Laurel Run	0.04	0.04-0.05
Rush Creek	0.035-0.055	0.06-0.12

The 100-year flood elevations were computed using the HEC-2 backwater computer program (Reference 11). The starting water-surface elevations for the Hocking River were obtained from the City of Logan, Ohio, Flood Insurance Study (Reference 12). The starting water-surface elevations for Oldtown Creek, Snow Fork, Monday Creek, Salt Creek, and Laurel Run were estimated using the slope-area method. The starting water-surface elevation for Snow Fork Tributary was based on a backwater analysis of Snow Fork.

The 100-year flood elevations for Rush Creek and Bear Run were computed using the WSP-2 backwater computer program (Reference 13).

Discharge in Snow Fork was assumed to be equal to the sum of the 100-year discharge of the Snow Fork Tributary and the bankfull discharge of Snow Fork. The resulting water-surface elevation obtained on Snow Fork at the confluence with the Snow Fork Tributary was used as the starting water-surface elevation for the Snow Fork Tributary.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals.

The hydraulic analyses for this study are based on the effects of unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). Elevation reference marks used in this study are shown on the map and described in the exhibit labeled Elevation Reference Marks.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound floodplain management programs. Therefore, each Flood Insurance Study provides 100-year flood elevations and delineations of the 100- and 500-year floodplain boundaries and 100-year floodway to assist communities in developing floodplain management measures.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance (500-year) flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 100- and 500-year floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:24000 with a contour interval of 20 feet (Reference 14).

The 100-year floodplain boundaries are shown on the Flood Insurance Rate Map. On this map, the 100-year floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, AH, AO, A99, V, and VE). Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 100-year floodplain boundary was delineated using Flood Hazard Boundary Map for Hocking County, Ohio (Reference 2).

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces the flood-carrying capacity, increases the flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the National Flood Insurance Program, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 100-year floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways for this study were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections and are shown in Table 2, Floodway Data. The computed floodways are shown on the Flood Insurance Rate Map. In cases where the floodway and 100-year floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
HOCKING RIVER								
A	7350	640	7048	4.7	717.6	717.6	718.6	1.0
B	8298	345	4264	7.8	718.7	718.7	719.2	0.5
C	10,501	572	7441	4.4	722.0	722.0	722.9	0.9
D	12,433	1095	13,254	2.5	722.6	722.6	723.6	1.0
E	13,985	1315	11,975	2.7	722.9	722.9	723.9	1.0
F	15,433	985	8248	4.0	723.5	723.5	724.4	0.9
G	15,939	350[2]	4355	7.5	723.5	723.5	724.4	0.9
H	16,451	387[2]	4987	6.6	724.4	724.4	725.3	0.9
I	16,947	470[2]	6236	5.3	725.4	725.4	726.1	0.7
J	20,733	190	3972	8.3	729.3	729.3	730.0	0.7
K	23,398	1040[2]	9563	3.3	732.4	732.4	733.1	0.7
L	25,494	1060[2]	13,319	2.3	733.4	733.4	734.4	1.0
M	27,036	680[2]	5981	5.2	733.6	733.6	734.6	1.0
N	28,609	675	7126	4.4	736.1	736.1	736.7	0.6
O	32,290	564	6755	4.6	738.6	738.6	739.3	0.7
P	37,750	505	7028	4.4	741.1	741.1	741.9	0.8
Q	43,470	447	5884	5.3	743.8	743.8	744.7	0.9
R	44,510	310	4552	6.8	744.2	744.2	745.2	1.0
S	45,730	590	6942	4.5	746.8	746.8	747.5	0.7
T	47,030	660	9330	3.3	747.5	747.5	748.3	0.8
U	49,850	560	7228	4.3	748.2	748.2	749.0	0.8
V	54,470	622	9184	3.3	749.8	749.8	750.7	0.9
W	56,550	805	10,102	3.0	750.6	750.6	751.6	1.0
X	61,930	603	7135	4.3	752.5	752.5	753.5	1.0
Y	64,690	810	8899	3.4	753.8	753.8	754.8	1.0
Z	66,380	680	6949	4.3	755.0	755.0	756.0	1.0

[1]FEET ABOVE CONFLUENCE OF THREEMILE CREEK
[2]THIS WIDTH EXTENDS WITHIN AREA NOT INCLUDED

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

FLOODWAY DATA

HOCKING RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
HOCKING RIVER								
AA	67,600	1060	11,067	2.7	755.9	755.9	756.9	1.0
AB	73,300	720	5701	5.3	758.4	758.4	759.3	0.9
AC	77,160	915	8709	3.4	761.6	761.6	762.5	0.9
OLDTOWN CREEK								
A	9360[2]	74	592	5.8	727.5	727.5	728.4	0.9
B	10,480[2]	59	429	8.0	730.7	730.7	731.1	0.4
C	12,900[2]	236	1354	2.5	736.4	736.4	737.4	1.0
D	15,850[2]	340	795	4.3	741.3	741.3	741.9	0.6
SALT CREEK								
A	19,300[3]	600	3265	6.3	727.2	727.2	728.2	1.0
B	22,700[3]	838	4562	4.3	734.7	734.7	735.7	1.0
C	24,830[3]	678	6033	3.3	736.1	736.1	737.0	0.9
LAUREL RUN								
D	32,160[3]	86	864	8.1	753.2	753.2	753.6	0.4
E	33,420[3]	160	1237	5.7	756.0	756.0	757.0	1.0

[1]FEET ABOVE CONFLUENCE OF THREEMILE CREEK
[2]FEET ABOVE MOUTH
[3]FEET ABOVE STATE ROUTE 56

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING CO., OH
(UNINCORPORATED AREAS)

FLOODWAY DATA

HOCKING RIVER—OLDTOWN CREEK—SALT CREEK / LAUREL RUN

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
SNOW FORK								
A	25,850	243	1494	4.2	700.9	700.9	701.9	1.0
B	28,670	139	1001	4.8	705.0	705.0	706.0	1.0
C	33,900	210	2052	2.3	716.3	716.3	717.3	1.0
D	35,700	236	1946	2.0	716.7	716.7	717.7	1.0
E	37,120	139	694	5.0	717.1	717.1	717.9	0.8
SNOW FORK TRIBUTARY								
A	1000	31	129	8.6	719.7	719.7	719.9	0.2
B	1528	85	558	2.0	726.1	726.1	727.0	0.9
C	2308	75	219	5.1	729.8	729.8	730.7	0.9
D	2480	85	348	3.2	730.6	730.6	731.6	1.0
MONDAY CREEK								
A	36,520	300	1754	3.7	681.0	681.0	682.0	1.0
B	39,100	300	1842	3.6	683.9	683.9	684.9	1.0
C	42,270	341	2500	2.6	687.4	687.4	688.4	1.0
D	45,000	150	1486	4.4	690.1	690.1	691.0	0.9
E	47,540	515	4612	1.4	691.5	691.5	692.5	1.0
F	50,200	369	3154	2.1	692.3	692.3	693.3	1.0
G	51,770	430	2260	2.9	693.4	693.4	694.4	1.0
H	55,350	500	4156	1.6	695.7	695.7	696.6	0.9
I	57,230	750	6521	1.0	696.2	696.2	697.2	1.0

[1]FEET ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING CO., OH
(UNINCORPORATED AREAS)

FLOODWAY DATA

SNOW FORK—SNOW FORK TRIBUTARY—MONDAY CREEK

Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplain will not cause more than 1.0-foot increase in the base flood elevations at any point within the community.

The area between the floodway and the 100-year floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood by more than 1.0 foot. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 2.

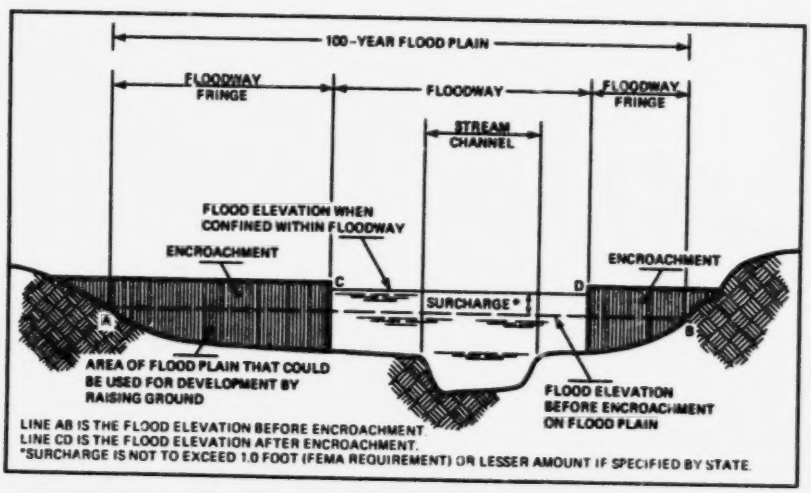
100-YEAR FLOOD PLAIN
FLOODWAY FRINGE
FLOODWAY
FLOODWAY FRINGE
STREAM CHANNEL
FLOOD ELEVATION WHEN CONFINED WITHIN FLOODWAY
ENCROACHMENT
ENCROACHMENT
C
D
SURCHARGE*
A
B
AREA OF FLOOD PLAIN THAT COULD BE USED FOR DEVELOPMENT BY RAISING GROUND
FLOOD ELEVATION BEFORE ENCROACHMENT ON FLOOD PLAIN
LINE AB IS THE FLOOD ELEVATION BEFORE ENCROACHMENT.
LINE CD IS THE FLOOD ELEVATION AFTER ENCROACHMENT.
*SURCHARGE IS NOT TO EXCEED 1.0 FOOT (FEMA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE.

FIGURE 2 - Floodway Schematic

5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base flood elevations or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by detailed methods. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 100-year floodplain, areas of 100-year flooding where average depths are less than 1 foot, areas of 100-year flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 100-year flood by levees. No base flood elevations or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The Flood Insurance Rate Map is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 100-year floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols the 100- and 500-year floodplains, the floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

7.0 OTHER STUDIES

The Flood Insurance Studies published for the City of Logan, and Fairfield County, Ohio (References 12 and 16) are in agreement with this study.

The Flood Insurance Study published for the Village of Murray City, Ohio (Reference 15) is not in agreement with this study. In the Village of Murray City Flood Insurance Study, the elevation for Snow Fork is 1.5 feet lower at the northern corporate limits.

The Flood Insurance Studies in progress for Ross County, Pickaway County, and Athens County, Ohio (References 17, 18, 19) are in agreement with this study.

This Flood Insurance Study supersedes the previously printed Flood Hazard Boundary Map for Hocking County, Ohio (Reference 2).

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, FEMA, 175 West Jackson Boulevard, 4th Floor, Chicago, Illinois 60604-2698.

Future revisions may be made that do not result in the republishing of the Flood Insurance Study report. To ensure that any user is aware of all revisions, it is advisable to contact the map repository of flood hazard data located in the community.

9.0 REFERENCES AND BIBLIOGRAPHY

1. U.S. Department of Agriculture, Soil Conservation Service, Flood Hazard Study - Rush Creek - Fairfield, Hocking & Perry Counties, Ohio, September 1980.

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15. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Village of Murray City, Hocking County, Ohio, November 1978.

16. Federal Emergency Management Agency, Flood Insurance Study, Fairfield County, Unincorporated Areas, Ohio, April 1989.

17. ————, Flood Insurance Study, Ross County, Unincorporated Areas, Ohio, in progress.

18. ————, Flood Insurance Study, Pickaway County, Unincorporated Areas, Ohio, in progress.

19. ————, Flood Insurance Study, Athens County, Unincorporated Areas, Ohio, in progress.

ELEVATION REFERENCE MARKS

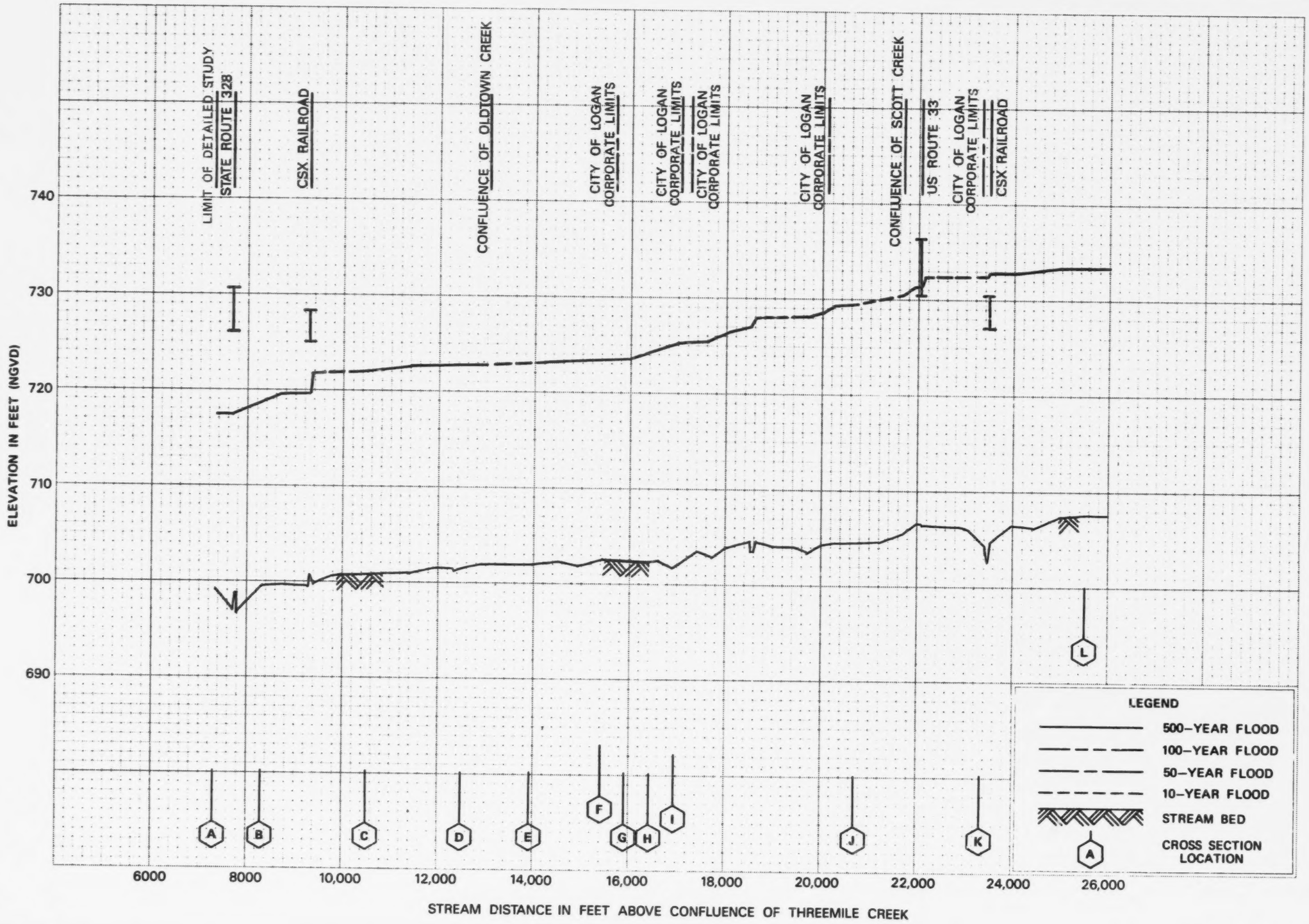
REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
1	0025	743.54	chiseled square in northeast corner of bottom stone of west stone abutment of CSX railroad bridge over the Hocking River, about 0.2 mile west along track from intersection with Zeller Road
2	0025	754.50	chiseled square in northeast corner of concrete deck of Rockbridge B Road bridge over the Hocking River
3	0025	790.43	chiseled square in southwest wingwall of State Route 664 bridge over Rush Creek
4	0025	786.57	chiseled cross in northwest concrete abutment of Bremen Road bridge over Bear Run
5	0025	787.30	top of 15th rivet from ground on north face of southeast truss of Bremen Road bridge over Rush Creek
6	0075	736.51	chiseled square in southwest corner of southwest concrete abutment of County Route 174 bridge over Salt Creek
7	0075	750.62	chiseled square in northwest corner of southwest concrete wingwall of State Route 180 bridge over Laurel Run, near the northern corporate limits of the Village of Laurelville
8	0100	736.26	Corps of Engineers brass cap stamped "12/11 1982" set in top of southeast wingwall of U.S. Route 33 bridge over the Hocking River
9	0100	729.33	chiseled square in top northeast corner of southeast headwall of CSX railroad bridge over the Hocking River, about 0.7 mile west along tracks from intersection with State Route 93

ELEVATION REFERENCE MARKS (Continued)

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
10	0100	734.21	Corps of Engineers brass cap stamped "12/10 1980" set in top of northwest wingwall of State Route 664 bridge over the Hocking River
11	0100	734.35	U.S. Geological Survey disk stamped "734.18" set in top of south wingwall of Chieftian Drive bridge over Harper Run
12	0100	748.38	disk stamped "H 69 1934" set in top of concrete post projecting 5 inches above ground located on east side of Enterprise Iles Road, about 0.3 mile southeast of intersection with Enterprise Iles Road and Chieftian Drive
13	0100	763.62	chiseled square in top of southeast corner of southeast concrete wingwall of Chieftian Drive bridge over the Hocking River, about 0.15 mile west of intersection with Enterprise Iles Road
14	0100	745.42	chiseled square in top of southeast concrete wingwall of Home Road bridge over the Hocking River
15	0100	748.60	U.S. Geological Survey disk stamped "749" set in top of sidewalk, 66 feet northwest of intersection of Home Road and CSX railroad
16	0100	737.13	U.S. Geological Survey disk stamped "737" set in top of southeast wingwall of State Route 93 bridge located about 2,400 feet southwest of intersection with Sutton Road

ELEVATION REFERENCE MARKS (Continued)

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
17	0100	746.08	U.S. Geological Survey disk stamped "745.92" set in top of southwest corner of west abutment of State Route 93 bridge located about 900 feet southwest of intersection with Gallagher Road
18	0100	743.51	chiseled square in southwest corner of concrete deck of Gallagher Road bridge over Oldtown Creek
19	0125	735.53	chiseled square in northwest corner of north end of concrete wall located on west side of Buchtel Road, 0.3 mile southeast along Buchtel Road from intersection with Cheeseman Road
20	0125	697.27	U.S. Geological Survey tablet stamped "ET 20 TWC 1959 697" set in sidewalk about 70 feet northeast of northeast corner of State Route 278 bridge over Monday Creek
21	0125	717.46	chiseled square in top northwest corner of northeast wingwall of Spencer Hollow Road bridge over Snow Fork



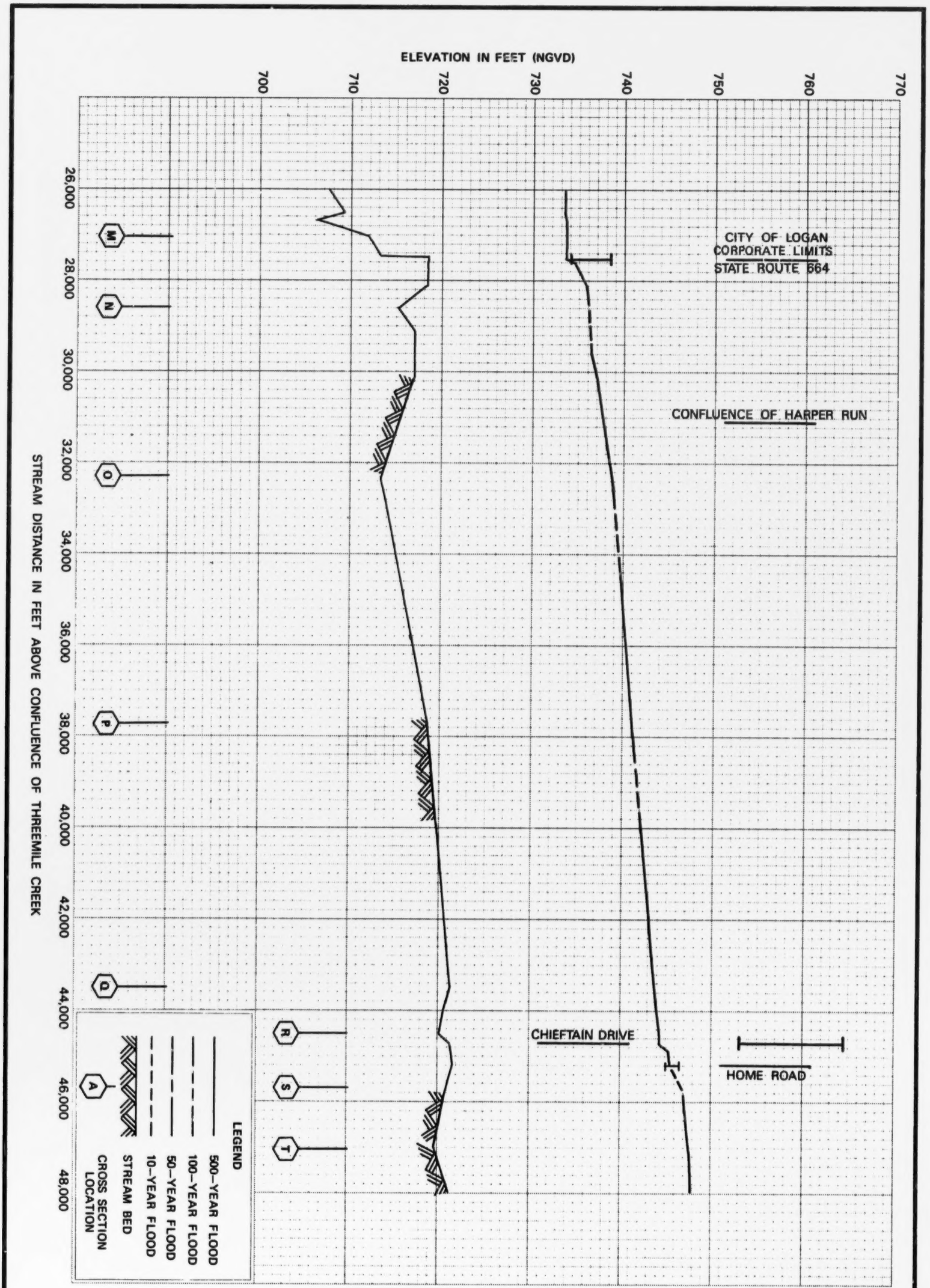
FLOOD PROFILES

HOCKING RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

01P



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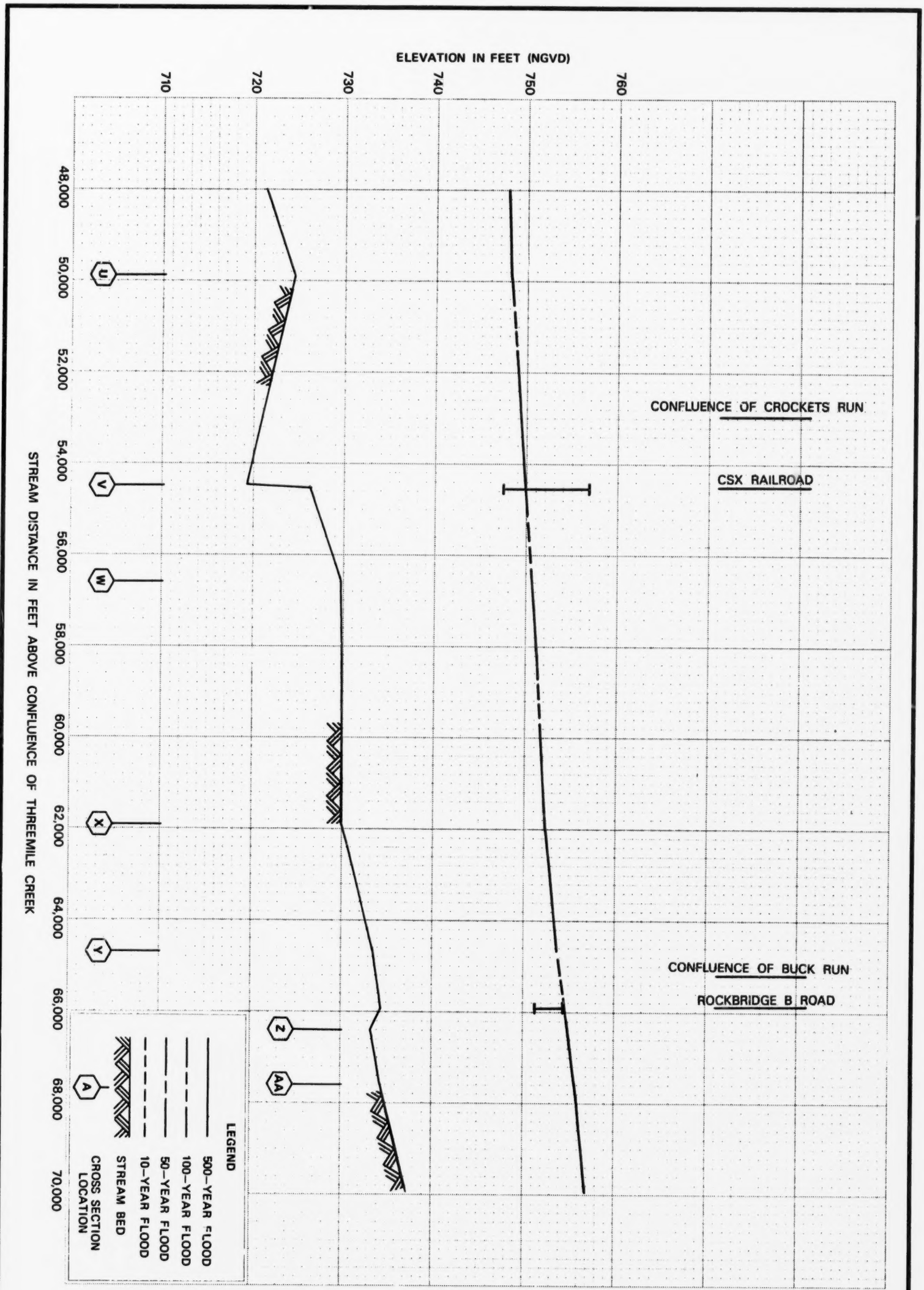
FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

FLOOD PROFILES

HOCKING RIVER



03P	FEDERAL EMERGENCY MANAGEMENT AGENCY **HOCKING COUNTY, OH** (UNINCORPORATED AREAS)	**FLOOD PROFILES** **HOCKING RIVER**

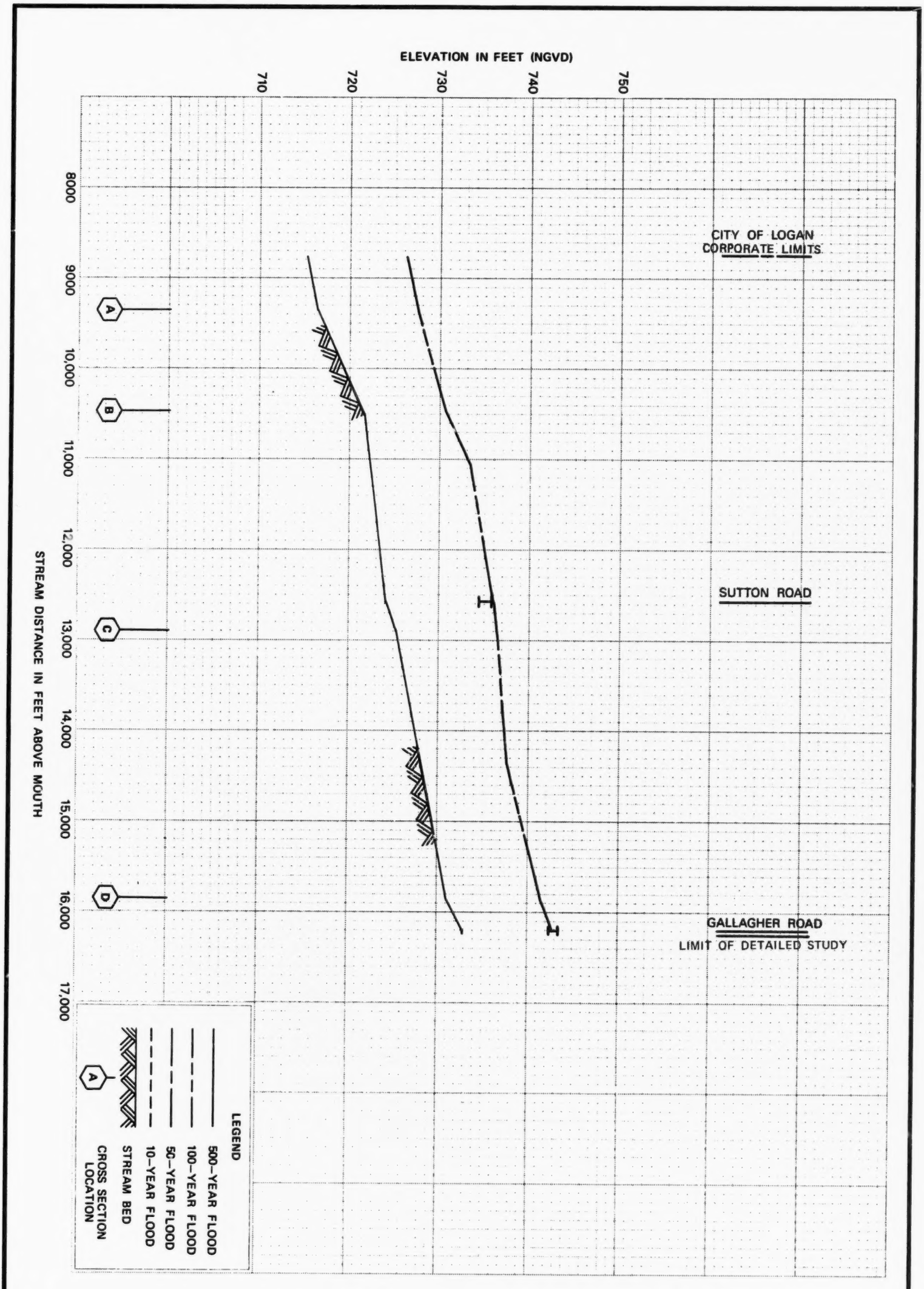
FLOOD PROFILES

HOCKING RIVER

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

04P



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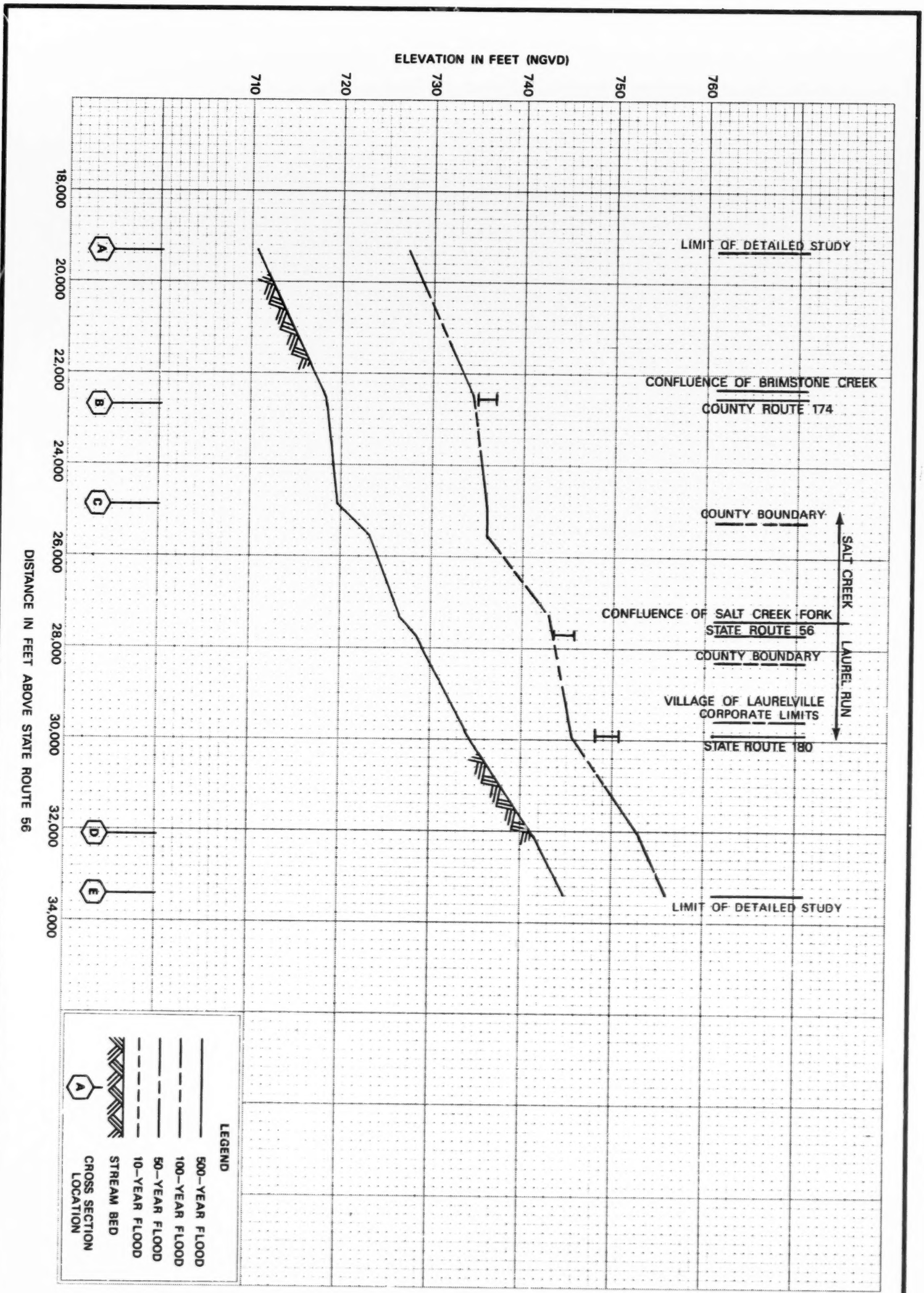
05P

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

FLOOD PROFILES

OLDTOWN CREEK



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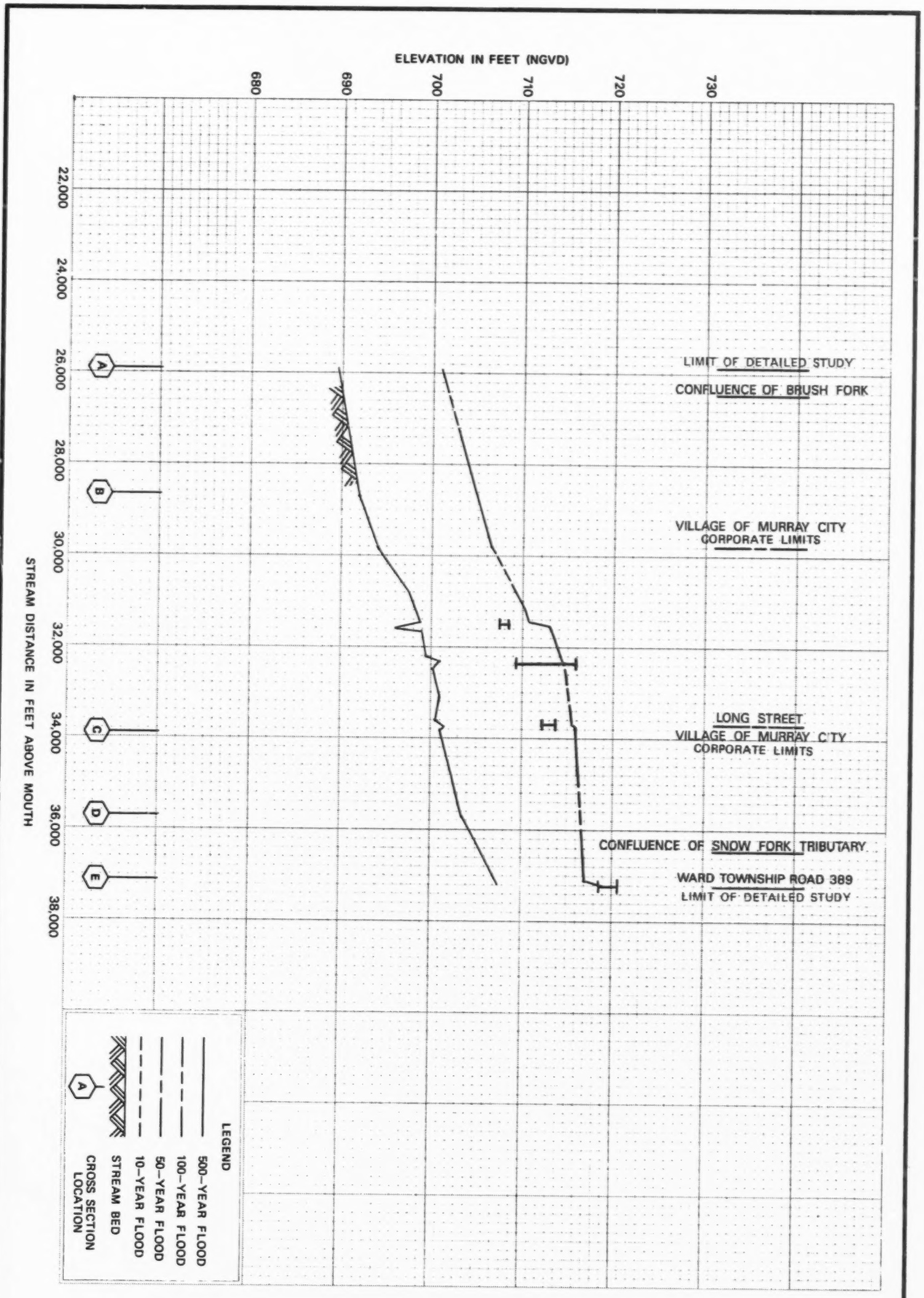
06P

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

FLOOD PROFILES

SALT CREEK/LAUREL RUN



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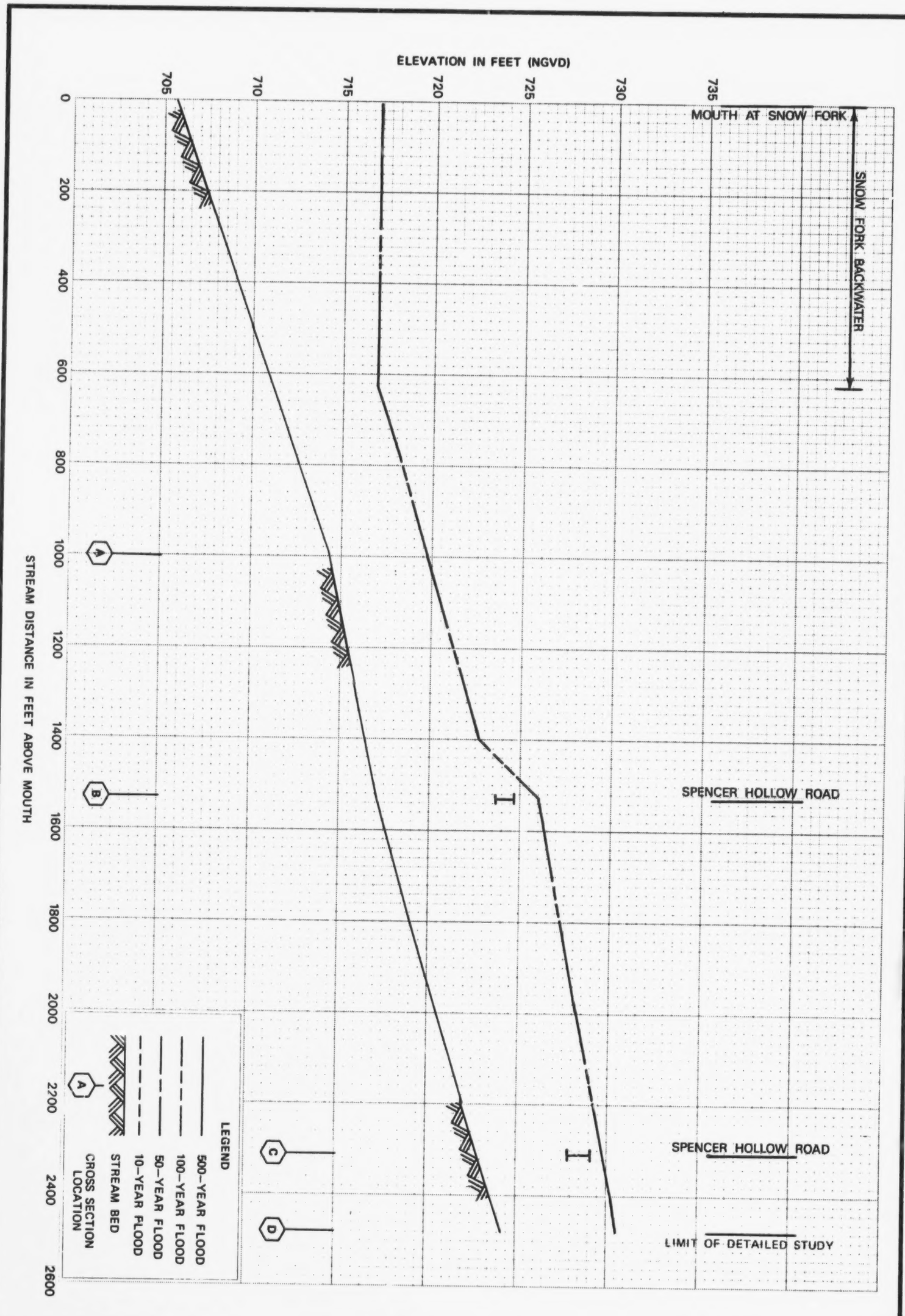

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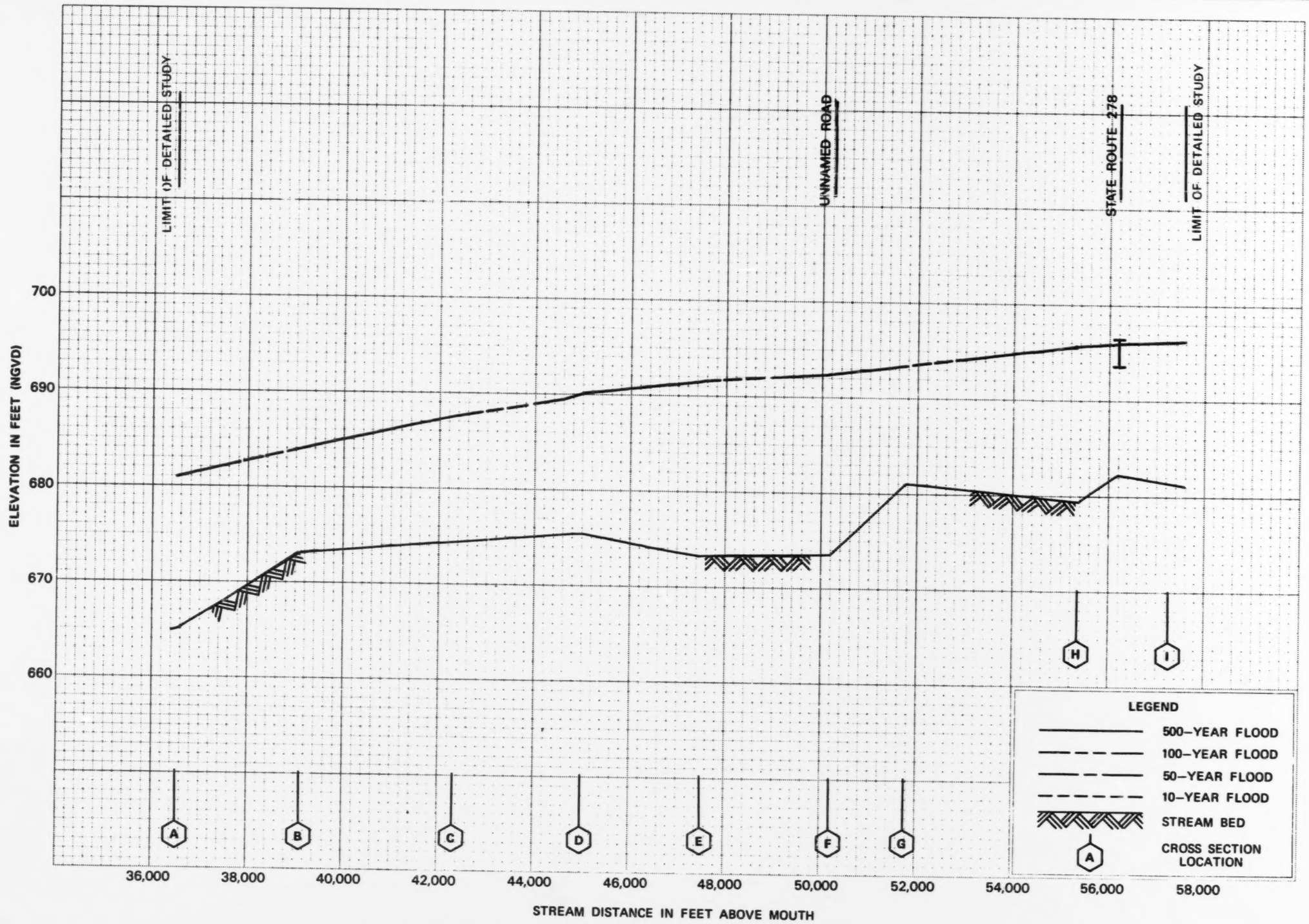


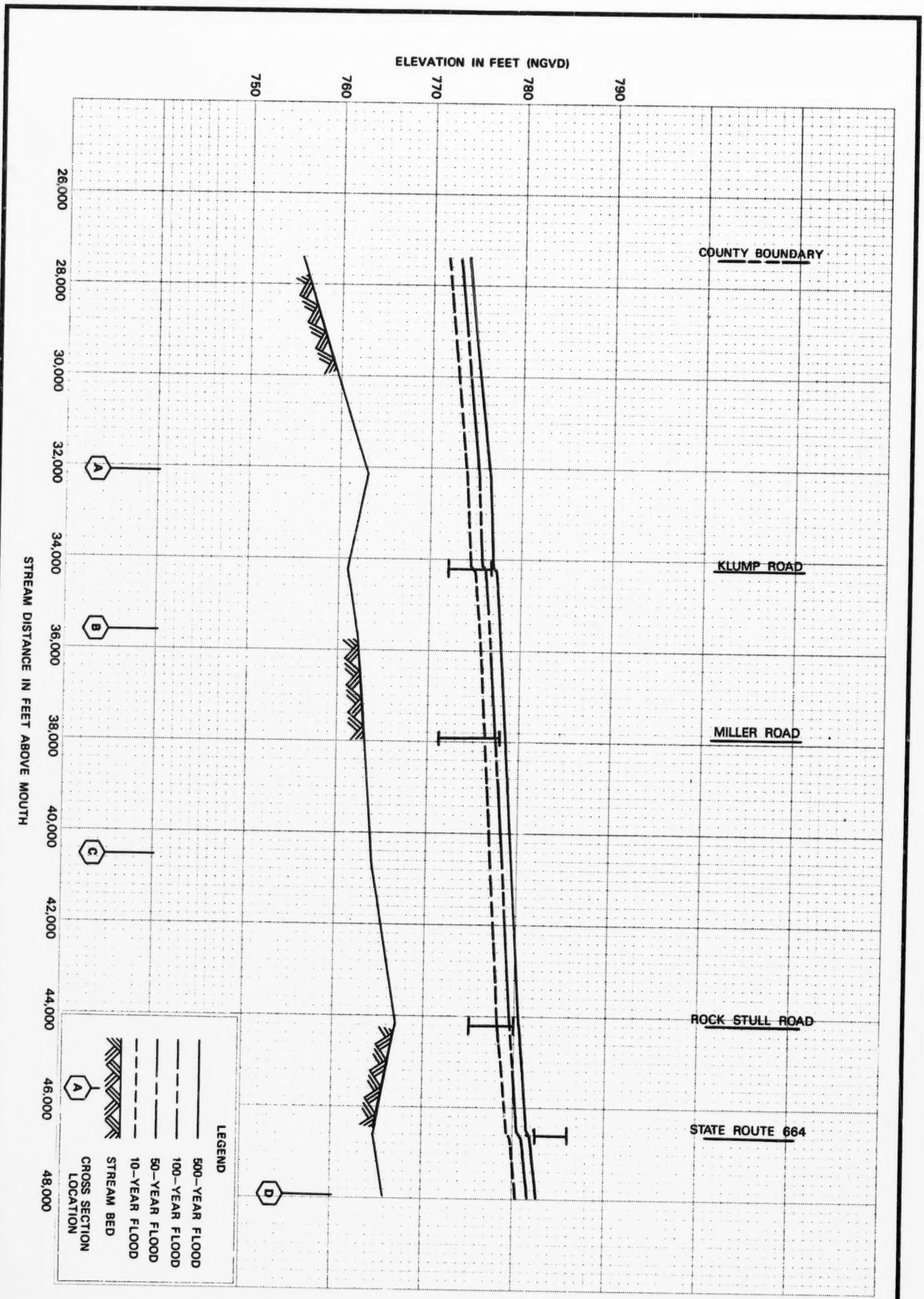
FLOOD PROFILES

MONDAY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

09P



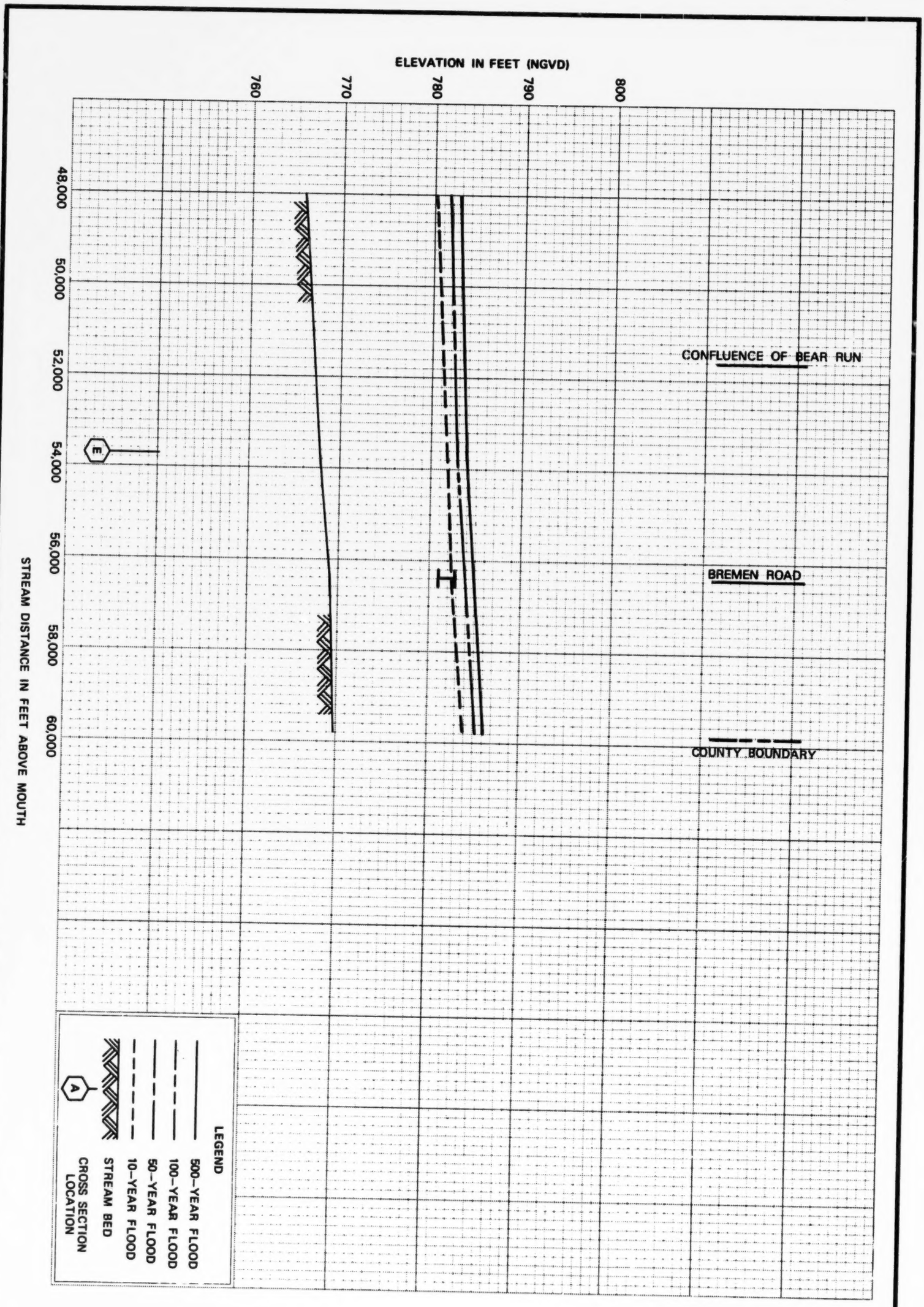
10P

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

FLOOD PROFILES

RUSH CREEK



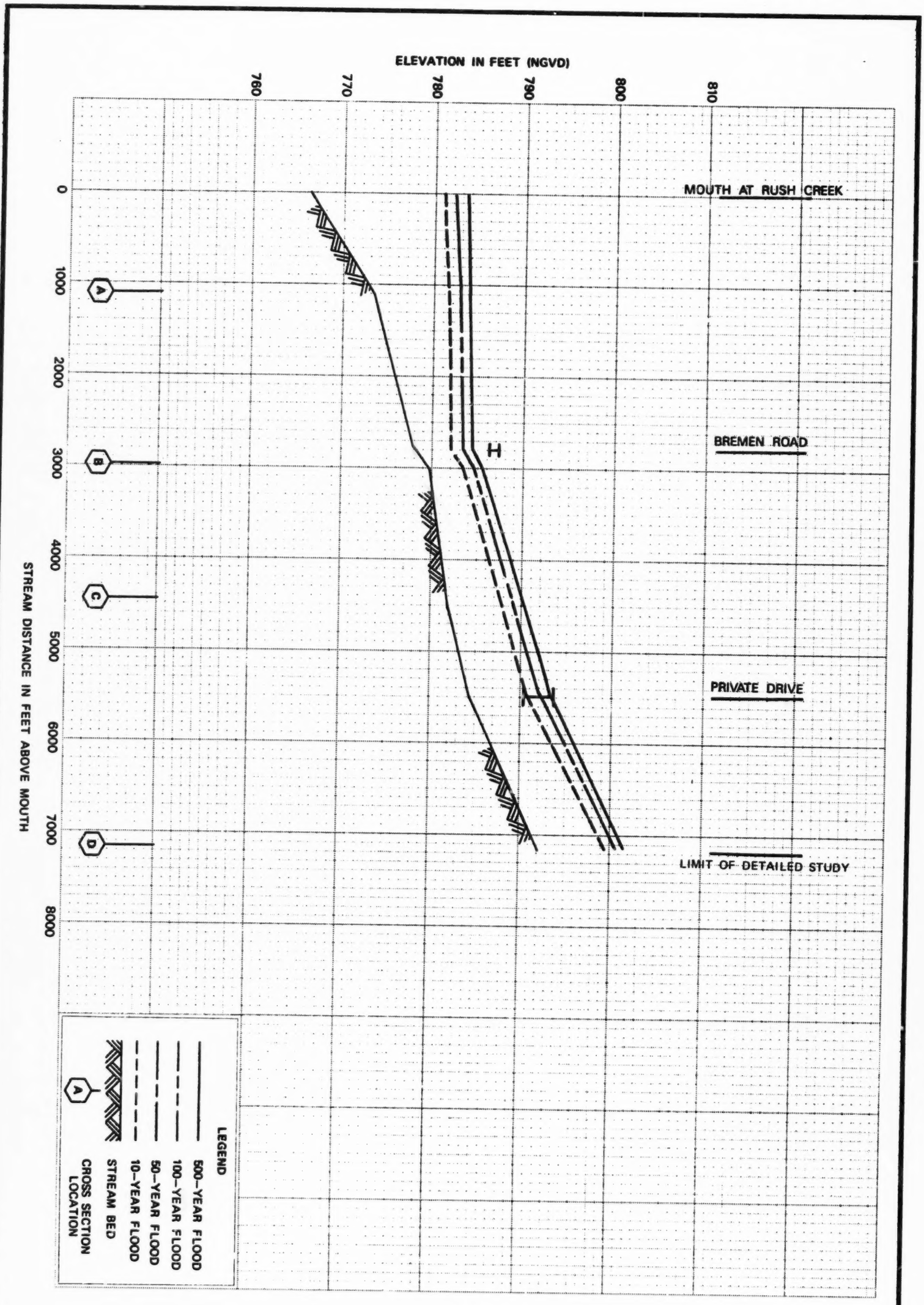
11P

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

FLOOD PROFILES

RUSH CREEK



12P

FEDERAL EMERGENCY MANAGEMENT AGENCY

HOCKING COUNTY, OH
(UNINCORPORATED AREAS)

FLOOD PROFILES

BEAR RUN